

## **The Effect of School Leaders 'Transformational and Technological Leadership Styles on Teachers' Organizational Commitment**

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DOI: 10.1043/mester/49.2020.60

### **Abstract**

The purpose of this study is to examine the effect of transformational leadership styles and technological leader styles on organizational commitment of educational institution managers.

The data of the research; In the 2016-2017 academic year, it was obtained from 2240 teachers working in elementary schools operating under the Ministry of National Education in Yıldırım District of Bursa. The results were analyzed by SPSS 24.0 program, Kolmogorov-Smirnov, Shapiro-Wilk, QQ plot graph, Skewness, Kurtosis, Levene, t-test, ANOVA, Tukey and Pearson correlation analyzes were performed.

As a result of the findings obtained from the research, school principals and teachers should be role models for their followers, focus more on concepts such as productivity and quality, reveal transformative, interactive and releasing leadership styles, and increase their organizational commitment in excellence of their professional development, not being motivated about the goals and objectives of the organization. Not to be encouraged, not to be guided by new and different approaches to the events, situations and problems, to experience transformational leadership in today's conditions where change is experienced in a dizzying way and to develop and spread extremely rapidly, to have negative results in leadership behavior and lack of visionary leadership. decreased.

**Keywords:** Education, Teacher, Technology, Leadership, Transformational leadership, Organizational commitment

### **Introduction**

Leadership characteristics of the administrators in schools, which are important building blocks of the social structure, affect the success and all activities of the institution providing talent

education. Research conducted in the last twenty years has revealed that the key to success of managers is competent management (Eren, 2011).

Therefore, although the authorities and obligations of all administrators on education-related issues are similar, the forms of administration show a different impression from each other (Bass, 2008).

For example, administrators' different comments on the legislation to which they belong; The desire or unwillingness to fulfill the authority in them arises from the individual quality of the administrator and the manner of upbringing. There is a possibility that an administrator can have a fundamental effect on the continuation of the activities of his organization. The administrator, the obligation imposed, are individuals who influence other people and enable them to show the desired actions. Therefore, leadership is the mastery of directing individuals to the desired behavior. It is possible to define the effect as one person meeting the other person's recommendations, instructions or instructions. In this respect, the individual who makes recommendations or gives instructions will be considered a leader (Drucker, 1988).

In this respect, leadership characteristics of managers are important for both individual and organizational performance.

#### Transformational Leadership

Transformational leadership was first mentioned by Dowton in 1973 in history. Later in 1978, Mc Gregor Burns voiced, but it was seen that they did not draw attention at that time. According to Burns, leadership is the process of maximizing the morale and motivation of the leader and his followers. It was then dealt with by Bernand Bass et al. And developed as a transformational leader theory (Şahin, 2006).

Transformational leaders have tried to create a conscious personality by attracting the moral values and ideals such as freedom, justice, equality, peace and humanity to the audience (Akbaba, 2003).

Burns and Bass, in addition to the classical and traditional forms of leadership behavior in the studies started after 1973 and in the field of management and leadership, concluded that a new distinction is required in transformational leadership in their studies. This distinction has led to transformational forms of leadership towards the future, innovation, change and reform (Eren, 2011).

The main task of the transformational leader in a developing and changing world to survive and to survive the organization to keep up with the change is to ensure that the organization is changing (Çelik, 2003).

In the last century, organizations have turned into organizations of a globalizing world. Technological developments have accelerated and many companies have developed new product lines. Transformational Leaders have to deal with changing external environmental and organizational conditions and problems by directing and solving the problems that are entrepreneurial, negotiating, motivating, inspiring, guiding, strategic and general by undertaking their duties (Eren, 2003).

Leaders with Transformational Leadership give employees broad visibility. By making changes in organizational culture to contribute to this vision, it makes them believe that they can do more than they do now or potentially think they can. It enables them to work more efficiently by making them trust themselves. Since the transformational leader is committed to the future, it can make significant changes in organizational performance in the short term. In the beginning, perhaps the performance of the organization may be slightly reduced. Some may even have strong resistance to change. However, those who show this resistance then try to adapt to the new environment (Eren, 2003).

Transformational leaders give responsibility to the members of the organization to improve their skills and increase their success, thus making them more productive. The transformational leader defined the ability of subordinates to maximize their desire for change and the ability to satisfy their emotional needs (Çelik, 2003).

Transformational leadership is expressed as the ability to create change in the vision, strategy and culture of the organization (Daft, 2000).

Podsakoff in transformational leaders (Podsakoff et al., 1990);

1. Definition of organizational vision,
2. Being an appropriate model for followers,
3. Encourage and accept the acceptance of the group's objectives,
4. Expect high performance from all members of the Group,
5. Each member provides individualized support,
6. Intellectual stimulation,

It is envisaged that at least six features are required.

Transformational leadership has been considered by many thinkers on the basis of four basic components. (Stewart, 2006; Scandura and Williams, 2004; Bass, 1997; Koh, et al., 1995; Bass, 1990; Barli, 2010).

1. Charisma
2. Impressive motivation
3. Intellectual stimulation
4. Individualized attention

In fact, as the name suggests, the transformational leader is the one who changes the beliefs, value judgments and needs of the audience. Realizes change and renewal in organizations and brings organizations to superior performance capacity. It is of great importance in establishing the vision of the Group and sharing it with the followers. This is only possible if the leader has a vision and has the vision accepted by the audience (Koçel, 2007).

In other words, the transformational leader is moving towards the future. It should also have a vision and aim to adopt this vision to its followers (Özden, 2002).

Transformational leaders are not the only ones who invite their followers to tackle old practices and produce new alternative ways. In addition, by abolishing prohibitive restrictions,

people are trying to reveal the originality and initiative that will bring about change in the work environment as much as possible (Moss et al., 2006).

As a result, when the conceptual studies for transformational leadership are examined, it can be said that the focus of all of them is human and the criterion of the effective leader is to meet human needs and to ensure their development. Transformational leaders use the ideal influence, individual attention, and inspirational motivation to lead the group and guide them (Celep, 2004).

### Technological Leadership

The technological leadership of the school principals stated that the teachers working in the school can effectively use the technology and can meet the requirements needed for this and can be the appropriate model if necessary (Persaud, 2006).

School administrators are the people who make the necessary efforts to ensure that the appropriate environment for the acquisition and use of educational technologies and to ensure that students benefit from these opportunities (Şişman-Eren, 2010).

The technology leader is the person who is able to reconcile these components in a harmonious way during the implementation of technology and human and technology components (Hamzah et al., 2010).

In fact, the most important problem of administrators in schools is that they are unprepared in this regard. It should ensure that school administrators use technology effectively by directing teachers. For this purpose, training of teachers by providing in-service training may be among the technological leadership duties of school administrators. (Weber, 2006).

As can be accepted; various factors such as rapid development of technology, rapid changes in education policies in our country, increasing sanctions on technology education and expectations from the school, lead to tight competition between schools and the emergence of new education approaches. All of these rapid developments lead to the increasing complexity of the roles expected from school administrators. Schools are expected to create better quality learning communities and to better use and apply technology. As a result of this, the importance of technology leadership of school administrators is increasing (Afshari et al., 2005).

The educational tools invented today thanks to technology have made a valuable contribution to education. Administrators in schools should play a decisive role in the effective use of these innovations in their schools. This role can be called technological leadership (Yu and Durrington, 2006).

Technological leadership is defined as the manager who makes the necessary guidance for the efficient use of technology in the school, influences, directs and manages students in this regard (Tanzer, 2004).

Education managers in schools should be aware that they need to know, understand and explain technology applications in decision-making processes, how technology interacts with

pedagogy and what technology can and cannot do. However, he stated that he can become a technology leader in this way (Langran, 2006).

In no country in our country, School Administrators do not have clear job descriptions as technological leaders. Because school principals are often held responsible for the implementation of technology in schools, the standards of job descriptions for school administrators have been published by the International Society for Technology in Education (ISTE), headquartered in the United States. These standards aim to help school administrators to become more effective instructional leaders in the use of technology in education in order to provide the appropriate environment for the acquisition and use of educational technologies for school administrators and to ensure that students benefit from these opportunities. NETS-A standards were re-evaluated by ISTE in 2009 and revised with some changes. The characteristics sought in the technology leader are as follows (ISTE, 2009; Hacifazlioglu et al., 2011; Sisman-Eren, 2010):

1. Visionary Leadership
2. Digital Age Learning Culture
3. Excellence in Professional Practice
4. Systematic Development
5. Digital Citizenship

This study is based on the NETS-A standards published in 2009 and the standards are briefly explained (Hacifazlıoğlu et al., 2010).

Managers have the chance to influence their followers through the leadership models they adopt. Impact creation is the sum of the stages in which an individual differentiates the types of behavior. Making an impact; it should be understood as the person who can support the achievement of the needs and objectives of the employees in terms of the acceptance of the manager in terms of the individuals under his administration, the need for guidance and determination of sides. Leaders and employees in the business environment are in constant influence. Leading managers in this communication; they must achieve success in achieving their organizational goals, tightening their loyalty to employees, ensuring that they are expecting and influencing employees. This success will enable employees to evaluate their profession at a high level of their life as a result of their activities in order to gain talent and expertise in a designated field.

Kotter (2001) describes this situation as putting forward its professional identity, exerting strength in terms of the occupational class of which it is a member, and adhering to professional purpose, value, rules and moral principles. It is observed that there is no consensus on the use of career, professional and occupation concepts in the researches carried out in the field of occupational affiliation. Feeling connected to the organization means the high level of violence in the desire to continue in the case of an element of an organization, the desire to exert higher levels of power for the organization, or a firm belief and acceptance of the objectives and values of the organization.

In other words, the feeling of being connected to the organization has been identified with all the activities, interests and success of the organization. In some of the studies conducted to

identify the factors that affect organizational commitment, the behavior of the leader is explained as an element (Çetin, 2004).

#### Organizational commitment

When we examine the concept of organizational commitment; It can be said that it is a phenomenon that deals with the attitudes and behaviors of the organization and its employees towards the job. In line with this review, the concept of organizational commitment also deals with employee identification, loyalty to work, and compliance with the work. In other words, this concept evolves the psychological commitment in the relationship between the organization and the employee, and it is necessary to realize mutual expectations for the bet of this commitment (Demirel, 2009).

Factors affecting organizational commitment were examined by distributing them as three factors: personal factors, organizational factors and non-organizational factors (Bülbül, 2007).

**Personal Factors:** Much research has been conducted on the relationships between organizational commitment and personal factors. As a general expression, it is accepted that there are close relationships between personal factors and organizational commitment. As a matter of fact, personal factors, organizational goals and the use of principles have become extremely important in matters such as the amount of time spent in the organization is high (Gündoğan, 2009).

- Business Expectations
- Psychological Contract
- Personal characteristics

**Organizational Factors:** Organizational factors affecting organizational commitment; quality and importance of work, management style, participation in decision-making process, business groups, organizational culture, role conflict, subordinate skill level, focus on work, task identity and organizational rewards. In addition, some researchers add role uncertainty, job difficulty, subordinate relations, progress and career opportunities, importance given to employee needs, wage justice and control relationships to organizational factors (Çelebi, 2009).

- Quality and Importance of Work
- Management and Leadership
- Wage Level

According to the researches, it is known that leader behaviors and practices affect employees' organizational commitment (Eren, 2011).

The employee, who believes that the organization and the organization representing the organization in this context is not assisted by the leader, demonstrates the low level of loyalty to the organization. If the personnel working in the institution are unemployed in the companies they are functional in or in the sectors in which the companies are located, there is a lack of sense of being connected to the organization and the lack of capital and equipment of the company they are doing in particular (Moss et al., 2006).

At this point; important roles are imposed on educational institutions and those who run these institutions or those who act as principals in schools for the development and development of individuals as desired. Because the driver at the wheel of the car is effective and responsible for guiding the vehicle; The transformational leadership and technological leadership of the school administrators are effective and effective in managing the organizational commitment of the educational institutions which are the most sensitive place in transferring the structural thought, task and objectives of the education to the people and ensuring the organizational commitment of the teachers. From this point of view; The aim of this study is to determine the effect of transformational leadership and technological leadership styles on organizational commitment within the framework of teachers' opinions. For the purpose of the research, the following questions were sought:

1. Is there a link between the types of leaders of the School Leaders who are transforming and the trainers' organizational commitment levels?
2. Is there a meaningful connection between the educational leadership managers' technological leadership style and the level of commitment of the trainers to the organization?
3. The transformational leadership styles of educational institution managers reveal a meaningful difference within the framework of the individual qualifications of the teachers (age, service period in the unit where they work, gender, branch etc.)?
4. The types of educational institution managers being technological leaders show a meaningful difference in terms of the individual qualifications of the trainers (education level, gender, service period in the unit they work in, age, branch etc.)?
5. Do public and private schools differ?

As a result, in our study, the relationship between educational leadership and the role of management, together with the different transformational leadership styles and technological leadership styles associated with the sense of organizational commitment of the movements will be evaluated based on the opinions of educators. Our research shows that the administrators of educational institutions obtain data about the types of transformational leaders and the ways they can become technological leaders, to be more effective in the business environment by providing improvement in leadership movements and to support the institution in which they are trained more. It will be determined how the effect of educational institution administrators on being a transformational leader and Technological Leadership behaviors on their commitment to the organization will be determined. It is thought that our research will make a new addition to the field of educational sciences and the concepts of administration and administration of educational institutions in order that the administrators of educational institutions know their status as a differentiating and progressing organization.

## **Method**

### **Research Model**

This research is a descriptive study conducted to investigate the relationship between educational leaders and transformational leadership styles and technological leadership styles according to the relational screening model based on socio-demographic variables.

#### Research Universe and Sample

The population of the study was composed of 2240 teachers working in elementary schools operating under the Ministry of National Education in Yildirim District of Bursa city in 2016-2017 academic year.

The socio-demographic characteristics of the school administrators and teachers participating in the research are given below.

Table 1. Distribution of School Administrators and Teachers by Socio-Demographic Characteristics (n = 2240)

	Frequency (n)	Percent (%)
Gender		
Woman	1393	62,2
Male	847	37,8
Age		
20-30	491	21,9
31-39	1053	47,0
40-48	440	19,6
49 and above	256	11,4
Marital status		
Married	1747	78,0
Single	485	21,7
Widow / Divorced	8	,4
Educational status		
License	1276	57,0
Master's Degree	684	30,5
Doctorate	280	12,5
Professional seniority		
1-10 years	1694	75,6
11-20 years	330	14,7
21 years and over	216	9,6
Education levels provided		
Primary school	822	36,7
Middle School	1005	44,9
High school	413	18,4
The school provides education status		
State school	1900	84,8
Private school	340	15,2

Table 1 shows that the school administrators and teachers who participated in the research; 62.2% of women and 37.8% male, 21.9% of the 20-30 age group, 47.0% in the age



range of 31-39, 19,6% in the 40-48 age range, 11.4% were 49 years or older, 78.0% married, 21.7% single, 0.4% widows / divorced, 57.0% of them have undergraduate degree, % 30,5 of them have graduate degree, 12.5% of the doctorate, according to their professional seniority; 75.6% of the population is between 1-10 years. 14.7% of the 11-20 years, 9.6% are 21 years or more, the level of education 36.7% of primary school, 44.9% of the students 18.4% is high school, the state of the school they are teaching 84.8% of the public schools, 15.2% of private schools It was determined.

### **Data Collection Tools**

The research data were collected by a questionnaire and the details of the sections in the questionnaire are given below. The application of the study was approved by the Bursa Governorship Provincial Directorate of National Education dated 21.02.2018 and numbered 3739156.

Socio-demographic Data Form: The Individual Data Sheet, developed by the researcher, is designed to determine the general profile of teachers and their characteristics related to demography, as well as the relationship between educational leader administrators' types of transformational leaders and technological leadership styles to the socio-demographic variables of educators. various variables were determined by examining. The form contains information on marital status, gender, age, seniority in the teaching profession, level of education, stage of education and the status of the school in which it provides education.

Multifactor Leadership Questionnaire 5-x short) (MLQ): The Multi Factor Leadership Questionnaire (MLQ-5X) was developed by Bass and Avolio in 1995 to measure the types of transformational and interactional leaders. There are 45 questions in line with the preparation of the types of personal leadership reports in terms of institution and science related investigations and the questionnaire (Avolio and Bass, 2004).

The transformation consists of a total of 45 expressions, 20 of which determine the type of leadership, 16 of the type of leader that interacts, and 9 of the results of being a leader. The transformational leadership situation consists of 4 statements in each part of itself; it consists of idealized action (action), idealized action (referred to), inculcation and motivation, intellectual warning and personal assistance. In the research, transformational leader subscale figures were calculated and the information about the leader status and results scale that interacts were excluded from the evaluation content. The coefficient of Cronbach katsayısı Alpha reliability was found to be  $\alpha = .94$ . (Avolio and Bass, 2004).

In our study, Multifactor Leadership Questionnaire 5-x short (MLQ): Cronbach's Alpha reliability coefficient was found to be  $\alpha = .90$ . The use of the scale in our study was approved by Mind Garden in 2017.

Technology Leadership Competence Scale of Educational Managers (TLCS): The original scale was developed under the Principals Technology Leadership Assessment, supported by the

American Research Institute (AIR) and the Center for Advanced Research in Technological Leadership (CASTLE), Iowa State University. The subscales of the scale consist of 6 technological leadership scales known as NETS-A. The original scale was obtained by applying the content validity scores of the experts and the Cronbach alpha coefficient was investigated for internal consistency reliability. The Cronbach's Alpha reliability coefficient was  $\alpha = .95$ . However, the internal consistency reliability coefficient of the "productivity and professional" scale was  $\alpha = .65$  (Castle, 2009). In our study, the Cronbach Alphas Alpha reliability coefficient of the Technology Leadership Competence Scale of Educational Administrators was found to be  $\alpha = .94$ . The scores to be averaged in the scale scoring were calculated by giving -2 points to "none" preference, -1 points to "less" preference, 0 points to "partially" preference, 1 point to "significant" preference, and 2 points for "Totally" preference. While scores close to -2 explain weakness, scores close to 2 mean being a strong technological leader. The fact that the average score is positive or negative makes it easy to make an interpretation on the level of individual data and talent level or lack of opportunities of the educational institution administrator (Castle, 2009).

In the evaluation of the levels of sufficiency, 5 intermediates were used, starting from (-2) and reaching (+2) and holding 8 intermediate values. Names of levels of availability are "none" (Mean = -2 to -1.2), "small amount" (Mean = -1.2 to -0.4), "partially" (Mean = -0.4 to 0.4) Ortalama significant amount "(Mean = 0.4 to 1.2)," completely "(Mean = 1.2 to 2). During the Turkish translation phase, Köksal Banoğlu obtained the necessary permissions from CASTLE director Scott Mcleod and asked for support from two linguists, one of whom is a sworn translator and interpreter of English. The comparison of the text types that occurred was carried out by the said translation team. The reliability of the scale of "efficiency and professional practice içinde in the original scale was seen as a low level and the approval of the translation team as a result of the problems in the translation phase related to culture was not included in the Turkish version of the scale. The expressions of the scale subscales are as follows; "Expressions 1-12 are visionary leaders, 13-15 digital age learning culture, 16-23 excellence in professional development, 24-26 systematic development, 27-32 digital citizenship." The use of the scale in our study was approved by Köksal Banoğlu's e-mail dated 20.12.2017.

**Organizational Commitment Scale (OCS):** In order to measure the organizational commitment of the trainers, Balay (2000) developed the Organizational Commitment Scale. The scale analyzes the organizational commitment in three subscales. These sub-scales are considered as identification, harmony and internalization that O'Reilly III and Chatman (1986) examined. Identification Scale: Satisfaction is a form of commitment that occurs when the individual is able to influence individual connections.

**Compliance Subscale:** In the adaptation phase, which is the first stage of the commitment state, people show themselves when they adopt their attitudes and behaviors in order to obtain identified reward types.

**Internalization Sub-Scale:** It is a state of commitment that occurs when the organization and the person's assets meet each other. The most preferred form of organizations is the way they depend (O'Reilly III and Chatman, 1986).

The Organizational Commitment Scale has 27 items. Evaluation of the items is done with 5-point Likert style. Participants were asked to mark each of the statements they would choose as (1) I disagree, (2) less agree, (3) moderate agree, (4) agree and (5) fully agree. The expressions in the adaptation subscale are: 1-8 identification, 9-16, and internalization 17-17-27. The lower level of organizational commitment score indicates the lower level of organizational commitment, the higher level of commitment score, the higher level of organizational commitment. Score constraints on organizational commitment; (1) I strongly disagree 1.00-1.79, (2) Agree Less 1.80-2.59, (3) I Agree on an Intermediate Level of 2,60-3,39, (4) Agree 3,40-4,19, (5) Full Agree 4,20-5,00 It was determined as. The coefficient of Cronbach's Alpha reliability is  $\alpha = .80$ . In our study, Cronbach katsayısı Alpha reliability coefficient of the Organizational Commitment Scale was found to be  $\alpha = .91$ .

#### Research permissions

Permission was obtained from Bursa Provincial Directorate of National Education with the approval dated 21.02.2018 and numbered 86896125.605-01 / E.3739156. Near East University Scientific Research Ethics Committee dated 04.03.2019 and numbered NEU / EB / 2019/272 numbered project, the effect of School Leaders 'Transformational Leadership and Technological Leadership on Teachers' Organizational Commitment was found to be ethically appropriate.

#### Data Collection

The data of the study were distributed to the school administrators and teachers working in the elementary schools operating under the Ministry of National Education in Yildırım district of Bursa city in 2016-2017 education period and then collected from the teachers.

#### Statistical Analysis of Data

Statistical Package for Social Sciences (SPSS) 24.0 software was used to analyze the data types provided by the questionnaire form used in the study. The distribution of educational institutions' administrators and educators according to their socio-demographic characteristics and in terms of some characteristics was determined by frequency analysis. Descriptive statistics were given about the scores of the school administrators and teachers from the Technology Leadership Competency Scale of Educational Administrators (TLCS) and the Organizational Commitment Scale (OCS). Parametric hypothesis test types were used according to the socio-demographic characteristics of school administrators and teachers, and because the data set did not show abnormal distribution during the comparison of the score types they received from the Technology Leadership Competence Scale of the Educational Administrators (TLCS) and the Organizational Commitment Scale (OCS). Kolmogorov-Smirnov, Shapiro-Wilk tests, QQ plot graph and skewness-kurtosis values were investigated and homogeneity of variance was investigated by Levene test. The independent sample t test was used when the independent variable consisted of 2 categories and the ANOVA test was used if the number of categories of the independent variable was more than two. According to the results of ANOVA, in case of statistically significant difference between the groups of independent variables, Tukey test, which is a post-hoc test, was used to find out from which groups the difference arises. Pearson correlation analysis was used to determine the correlations between school administrators and teachers' scores obtained from

Educational Leadership Technology Competence Scale (TLCS) and Organizational Commitment Scale (OCS).

### Findings

The findings of the study conducted in order to examine the relationship between educational leaders and transformational leader types and technological leadership styles of educators and their organizational commitment according to socio-demographic variables are as follows.

Table 2. Descriptive statistics of Educational Administrators' Organizational Commitment Scale (OCS), Multiple Factor Leadership Styles Scale (MFLSS) and Technology Leadership Competencies Scale (TLCS) scores of school administrators and teachers (n = 2240)

Scales	n	$\bar{x}$	s	Min	Max
– Harmony	2240	24,60	9,16	10	50
– Identification	2240	34,28	9,21	10	50
– Internalization	2240	36,34	8,62	10	50
Organizational Commitment Scale (OCS)	2240	32,25	6,83	10	50
– Idealized effect (behavior)	2240	35,55	7,61	10	50
– Idealized effect (attributed)	2240	37,40	8,96	10	50
– Motivation with suggestion	2240	35,75	8,49	10	50
– Intellectual stimulation	2240	33,75	8,31	10	50
– Individual support	2240	38,41	8,56	10	50
Transformational Leadership	2240	36,17	6,36	10	50
Interactive Leadership	2240	33,13	5,79	10	50
Results of Leadership Behaviors	2240	37,64	8,16	10	50
Multiple Factor Leadership Styles Scale (MFLSS)	2240	35,38	5,32	10	50
– Visionary Leadership	2240	33,66	7,74	10	50
– Digital Age Learning Culture	2240	35,90	9,52	10	50
– Excellence in Professional Development	2240	35,23	6,94	10	50
– Systematic Development	2240	33,27	8,95	10	50
– Digital Citizenship	2240	35,51	8,75	10	50
Technology Leadership Competencies Scale (TLCS)	2240	34,57	6,48	10	50

Table 2 shows that school administrators and teachers' organizational commitment scale; It was observed that they got scores from the adaptation sub-dimension ( $24.60 \pm 9.16$ ), identification sub-dimension ( $34.28 \pm 9.21$ ) and internalization sub-dimension ( $36.34 \pm 8.62$ ). It was observed that school administrators and teachers obtained from the organizational commitment scale; the minimum score was 10, the maximum score was 50, and the average score ( $32.25 \pm 6.83$ ) was found. The transformational leadership scale included in the multi-factor leadership styles scale; idealized effect (behavior) sub-dimension ( $35.55 \pm 7.61$ ), idealized effect (attributed) sub-dimension ( $37.40 \pm 8.96$ ), suggestive motivation sub-dimension ( $35.75 \pm 8.49$ ), intellectual stimulation subscale ( $33.75 \pm 8.31$ ), individual support subscale ( $38.41 \pm 8.56$ ) were found to score. School administrators and teachers received from across the transformational

leadership scale; the minimum score was 10 and the maximum score was 50, and the mean score and standard deviation ( $36.17 \pm 6.36$ ) were obtained. In the scale of multi-factor leadership styles; It was observed that the scores of the results of the leadership behaviors ( $37.64 \pm 8.16$ ) were obtained from the interactionist leadership sub-dimension ( $33.13 \pm 5.79$ ). School administrators and teachers received multiple factor leadership styles; the minimum score was 10, the maximum score was 50, and the average score ( $35.38 \pm 5.32$ ) was found.

Table 3. Comparison of school administrators and teachers' scores on the scales according to their gender (n = 2240)

Scales	Gender	n	$\bar{x}$	s	t	p
– Harmony	Woman	1393	24,01	8,80	-3,902	,000*
	Male	847	25,56	9,64		
– Identification	Woman	1393	33,85	9,22	-2,871	,004*
	Male	847	35,00	9,14		
Organizational Commitment Scale (OCS)	Woman	1393	31,84	6,89	-3,631	,000*
	Male	847	32,92	6,69		
– Multiple Factor Leadership Styles Scale (MFLSS) Idealized effect (Attributed)	Woman	1393	37,75	8,73	2,387	,017*
	Male	847	36,82	9,30		

\*p<0,05

Table 3 shows the gender of educational administrators and trainers participating in the research; The difference between the values taken from the organizational commitment scale, organizational commitment scale adaptation and identification subscales was statistically significant ( $p < 0.05$ ). The scores of male school administrators and teachers from the adaptation and identification sub-dimension were found to be higher than female school administrators and teachers. The difference in the values taken from the idealized effect (attributed) subscale of the transformational leadership scale in the multi-factor leadership styles scale was statistically significant ( $p < 0.05$ ). The values of female school administrators and educators from the idealized effect subscale were higher than male school administrators and educators.

Table 4. Comparison of school administrators and teachers' scores on the scales according to their ages (n = 2240)

	Age	n	$\bar{x}$	s	MinMax	F	p	Difference
Organizational Commitment Scale Harmony subscale	20-30	491	24,41	8,82	10 50	3,824	,010*	1-3
	31-39	1053	24,24	8,87	10 50			
	40-48	440	25,91	9,47	10 50			
	49 and over	256	24,18	10,21	10 50			
	20-30	491	33,02	5,41	10 50			
Multiple Factor Leadership Styles Scale Interactive Leadership subscale	31-39	1053	32,81	5,64	10 50	5,282	,001*	1-3 2-3
	40-48	440	34,09	6,01	10 50			
	49 and over	256	32,94	6,52	10 50			

Technology Competencies Scale in Professional Development subscale	Leadership Excellence	20-30	491	35,81	6,84	10	50	2,778 ,040*	1-2
		31-39	1053	34,81	6,96	10	50		
		40-48	440	35,40	6,81	10	50		
		49 and over	256	35,61	7,23	10	50		
Technology Competencies Scale	Leadership	20-30	491	35,14	6,45	10	50	2,870 ,035*	1-2
		31-39	1053	34,17	6,51	10	50		
		40-48	440	34,71	6,37	10	50		
		49 and over	256	34,889	6,51	10	50		

\*p<0,05

In Table 4, according to the age of the school administrators and teachers participating in the research; The difference between the scores obtained from the organizational commitment scale adaptation subscale was found to be statistically significant ( $p < 0.05$ ). This difference; 20-30 years and between 40-48 years school administrators and teachers. In the scale of multi-factor leadership styles; it was found that the difference between the scores obtained from the interactionist leadership subscale was statistically significant ( $p < 0.05$ ). This difference; 20-30 years old, between 31-39 years and 40-48 years of school administrators and teachers. According to the age of school administrators and teachers; technology leadership scale was found to be statistically significant difference between the scores obtained from the excellence harmony subscale of professional development and technology leadership scale in general ( $p < 0.05$ ). This difference; 20-30 years and between 31-39 years school administrators and teachers.

Table 5. Comparison of school administrators and teachers' scores on the scales according to their marital status (n = 2240)

	Marital status	n	$\bar{x}$	s	MinMax	F	p	Difference
Organizational Commitment Scale	Married	1747	34,41	9,02	10 50	3,634 ,027*		2-3
	Single	485	33,70	9,86	10 50			
Identification subscale	Widow / Divorced	8	41,56	4,31	37 50			

\*p<0,05

Table 5 according to the marital status of school administrators and teachers participating in the research; It was found that the difference between the scores of the organizational commitment scale and the identification sub-dimension was statistically significant ( $p < 0.05$ ). This difference is due to single and Widowed / Divorced school administrators and teachers.

Table 6. Comparison of school administrators and teachers' scores on the scales according to their educational status (n = 2240)

	Educational status	n	$\bar{x}$	S	Min Max	F	p	Dif.
Organizational Commitment Scale	License	1276	23,32	9,08	10 50	31,736 ,000*		1-2
	Master's Degree	684	25,91	8,78	10 50			

Harmony subscale	Doctorate	280	27,22	9,43	10	50			1-3
Multiple Factor	License	1276	35,65	7,47	10	50			1-
Leadership Styles Scale	Master's Degree	684	36,08	7,54	10	50	8,898	,000*	2
Idealized effect (behavior) subscale	Doctorate	280	33,83	8,19	10	50			1-3
Multiple Factor	License	1276	36,34	8,39	10	50			1-
Leadership Styles Scale	Master's Degree	684	35,27	8,58	10	50	8,841	,000*	2
Motivation with suggestion subscale	Doctorate	280	34,21	8,51	10	50			1-3
Multiple Factor	License	1276	36,33	6,35	10	50			
Leadership Styles Scale	Master's Degree	684	36,25	6,30	10	50	3,239	,039*	1-3
Transformational Leadership subscale	Doctorate	280	35,27	6,53	10	50			
Multiple Factor	License	1276	32,88	5,62	10	50			
Leadership Styles Scale	Master's Degree	684	33,64	6,02	10	50	3,871	,021*	1-2
Interactive Leadership subscale	Doctorate	280	32,98	5,92	10	50			

\*p<0,05

Table 6. According to the educational status of the school administrators and teachers participating in the research; The difference between the scores obtained from the organizational commitment scale adaptation subscale was found to be statistically significant ( $p < 0.05$ ). This difference stems from the school administrators and teachers who have undergraduate, graduate and doctoral degrees. According to the educational status of school administrators and teachers; The difference between the scores obtained from the idealized effect (Behavior) subscale of the Transformational leadership scale in the Multi-Factor Leadership Styles Scale was found to be statistically significant ( $p < 0.05$ ). This difference stems from the school administrators and teachers who have undergraduate, graduate and doctoral degrees. The difference between the scores of the transformational leadership scale from the motivational motivation subscale was found to be statistically significant ( $p < 0.05$ ). This difference stems from the school administrators and teachers who have undergraduate, graduate and doctoral degrees. The difference between the scores obtained from the transformational leadership scale was found to be statistically significant ( $p < 0.05$ ). This difference stems from the school administrators and teachers who have undergraduate and doctoral degrees. The difference between the scores obtained from the interactive leadership scale was found to be statistically significant ( $p < 0.05$ ). This difference stems from the school administrators and teachers who have undergraduate and graduate degrees

Table 7. Correlations between school administrators and teachers' scale scores (n = 2240)

	Harmony	Identification	Internalization	Organizational Commitment Scale	Idealized effect (behavior)	Idealized effect (attribute)	Motivation with suggestion	Intellectual stimulation	Individual support	Transformational Leadership	Interactive Leadership	Results of Leadership Behaviors	Multiple Factor Leadership Styles	Visionary Leadership	Digital Age Learning Culture	Excellence in Professional Systematic Development	Digital Citizenship Technology
Harmony	r 1																
Identification	r ,199**	1															
	r ,000																
Internalization	r ,103**	r ,765**	1														
	r ,000	r ,000															
Organizational Commitment Scale	r ,529**	r ,871**	r ,860**	1													
	r ,000	r ,000	r ,000														
Idealized effect (behavior)	r -,061**	r ,138**	r ,158**	r ,112**	1												
	r ,004	r ,000	r ,000	r ,000													
Idealized effect (attribute)	r ,018	r ,237**	r ,207**	r ,208**	r ,669**	1											
	r ,395	r ,000	r ,000	r ,000	r ,000												
Motivation with suggestion	r -,336**	r ,052*	r ,001	r ,153**	r ,468**	r ,510**	1										
	r ,000	r ,014	r ,952	r ,000	r ,000	r ,000											
Intellectual stimulation	r -,241**	r ,088**	r ,053*	r ,158**	r ,414**	r ,399**	r ,680**	1									
	r ,000	r ,000	r ,012	r ,000	r ,000	r ,000	r ,000										



Individual support	r	,08 0**	- ,01 4	- ,04 8*	,00 1	,32 7**	,36 3**	,32 5**	,54 1**	1									
	F	,00 0	,50 0	,02 2	,96 0	,00 0	,00 0	,00 0	,00 0										
Transformational Leadership	r	,14 1**	,05 9**	,07 0**	,00 4	,74 9**	,78 0**	,78 8**	,79 9**	,67 8**	1								
	F	,00 0	,00 5	,00 1	,86 8	,00 0	,00 0	,00 0	,00 0	,00 0									
Interactive Leadership	r	,34 9**	,25 7**	,19 3**	,34 0**	,33 0**	,46 0**	,09 2**	,16 4**	,39 1**	,38 1**	1							
	F	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0								
Results of Leadership Behaviors	r	,04 4*	,03 5	,03 9	,05 1*	,39 6**	,45 1**	,45 0**	,61 7**	,77 2**	,71 1**	,35 4**	1						
	F	,03 8	,09 9	,06 3	,01 5	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0							
Multiple Factor Leadership Styles Scale	r	,04 7*	,12 0**	,09 9**	,11 8**	,64 7**	,73 1**	,59 3**	,67 8**	,74 9**	,89 7**	,69 9**	,82 2**	1					
	F	,02 7	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0						
Visionary Leadership	r	,09 6**	,01 6	,03 4	,01 4	,00 5	,01 2	,01 7	,16 6**	,34 0**	,13 5**	,19 1**	,27 7**	,23 1**	1				
	F	,00 0	,45 8	,10 7	,49 5	,82 1	,56 4	,41 5	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0					
Digital Age Learning Culture	r	,12 5**	,01 4	,00 5	,05 2*	,02 2	,01 2	,05 4*	,10 9**	,37 0**	,10 5**	,22 1**	,26 8**	,22 4**	,78 7**	1			
	F	,00 0	,51 2	,80 2	,01 3	,30 0	,57 3	,01 1	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0				
Excellence in Professional Development	r	,10 1**	,00 3	,00 4	,04 0	,00 2	,00 6	,04 3*	,06 6**	,22 0**	,06 6**	,10 7**	,16 3**	,12 7**	,67 0**	,64 0**	1		
	F	,00 0	,88 4	,86 8	,06 1	,93 5	,78 9	,04 4	,00 2	,00 0	,00 2	,00 0	,00 0	,00 0	,00 0	,00 0			
Systematic Development	r	,01 2	,01 3	,00 9	,01 5	,00 5	,00 9	,00 2	,00 3	,01 2	,00 0	,03 2	,01 9	,01 8	,32 6**	,26 4**	,67 9**	1	

ent	r	,55 7	,54 8	,66 0	,48 5	,82 7	,68 6	,91 0	,90 6	,57 8	,98 6	,13 4	,36 7	,39 7	,00 0	,00 0	,00 0			
Digital Citizenshi p	r-	-	-	-	-	-	-	-	-	-	-	-	-	-	,33 6**	,30 0**	,63 4**	,70 0**	1	
	r	,95 3	,48 7	,58 2	,55 9	,13 1	,38 3	,24 7	,33 3	,32 1	,15 1	,18 0	,13 1	,08 1	,00 0	,00 0	,00 0	,00 0		
Technolo gy Leadershi p	r	,08 5**	-,01 0	-,02 1	-,01 9	-,01 3	-,00 9	-,01 8	,10 2**	,25 5**	,08 5**	,13 3**	,19 4**	,15 6**	,86 3**	,77 2**	,90 4**	,67 1**	,70 5**	1
Competen cies Scale	r	,00 0	,64 8	,31 9	,36 2	,53 6	,66 5	,40 5	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	,00 0	

\*p<0,05\*\*p<0,01

In Table 7, as a result of the Pearson correlation analysis conducted to determine the correlations between school administrators and teachers' Organizational Commitment Scale, Multi-Factor Leadership Types Scale and Technology Leadership Competency Scale scores; The scores of the school administrators and teachers from the adaptation subscale of Organizational Commitment Scale and the idealized effect (behavior), suggestive motivation, intellectual stimulation sub-dimensions and transformational leadership and leadership behavior scores in the Multifactorial Leadership Types Scale were statistically significant and significant. negative correlations ( $p < 0.05$ ). These correlations are negative, and as the adaptation scores of school administrators and teachers increase, idealized effect (behavior), suggestive motivation, intellectual stimulation, transformational leadership and leadership behavior scores decrease. There were statistically significant and positive correlations between individual support subscale, interactive leadership scale, Multi-Factor Leadership Types Scale, Technology Leadership Competency Scale, Visionary Leadership, Digital Age Learning Culture, Excellence in Professional Development, Technology Leadership Competency Scale. ( $p < 0.05$ ). These correlations are positive, and as the adaptation scores of school administrators and teachers increase, they increase from the Multi-Factor Leadership Types Scale, Technology Leadership Competencies Scale, Visionary Leadership, Digital Age Learning Culture, Excellence in Professional Development and Technology Leadership Competencies Scale. It was found that there were statistically significant and negative correlations between the scores of the school administrators and teachers from the identification sub-dimension of Organizational Commitment Scale and the motivational motivation and interactionist leadership scales in the Multifactorial Leadership Types Scale ( $p < 0.05$ ). These correlations are negative, and as the identification scores of the school administrators and teachers increase, they decrease in the scores obtained from motivation and interactional leadership scale.

Statistically significant and positive correlations were found between idealized effect (behavior), idealized effect (attributed), intellectual stimulation sub-dimensions, transformational leadership, and scores on the multifactorial leadership types scale ( $p < 0.05$ ).

These correlations are positive and increase in the scores of school administrators and teachers across the scale of idealized effect (behavior), idealized effect (attributed), intellectual stimulation, transformative leadership, multifactorial leadership types as identification scores increase

There were statistically significant and negative correlations between the scores of school administrators and teachers from the internalization sub dimension, intellectual stimulation and individual support sub dimension on the organizational commitment scale ( $p < 0.05$ ). These correlations are negative, increasing in the scores school administrators and teachers receive from the intellectual stimulation and individual support scales as internalization scores increase.

The scale of the multifactor leadership types, located on the idealized influence (behavior), idealized influence (attributed) sub-dimensions of transformational leadership and transactional leadership styles multifactor leadership scale were statistically significant and positive correlations between the scores in the scale ( $p < 0.05$ ). These correlations are positive and increase in the scores of school administrators and teachers on the idealized effect (behavior), idealized effect (attributed), transformative leadership and Interactor leadership scales and the multifactor leadership types scale.

School administrators and teachers on the scale multifactor leadership motivation and intellectual stimulation from a suggestion of the types located in the lower dimensions, and negative correlations between the leadership Behavior Scale scores were statistically significant results ( $p < 0.05$ ). These correlations are negative and decrease in the scores that school administrators and teachers receive from the lower dimensions of indoctrination and intellectual stimulation, the scale of leadership behavior outcomes, as organizational commitment scores increase.

Organizational commitment Scale, throughout the scale of the multifactor leadership types, located on the idealized influence (behavior), and idealized influence (attributed) from the lower dimensions, from the scale of transactional leadership, the multifactor leadership style scale, throughout the scale of digital age learning technology leadership competency scores between the sub-dimensions of culture were statistically significant and positive correlations ( $p < 0.05$ ). These correlations are positive and increase in school administrators and teachers' scores from the idealized impact (behavior) and idealized impact (attributed) sub-dimensions of the multifactor leadership types scale, the Interactor leadership scale, the multifactor leadership types scale, the technology leadership competencies scale sub-dimensions of the digital age learning culture as organizational commitment scores increase.

Table 8. Multiple Factor leadership styles scale of school administrators and teachers, regression model for predicting organizational commitment of scores from technology leadership competencies scale (n = 2240)

Non- Standardize d Coefficients	Standardized Coefficients	t	p
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	B	SH	Beta		
(Constant)	2,479	,112		22,088	0,000 *
Idealized effect (behavior)	0,32	0,23	0,36	1,379	0,168
					0,000 *
Idealized effect (attributed)	1,94	0,22	2,54	8,664	0,000 *
					0,000 *
Motivation with suggestion.	-1,45	0,23	-1,80	-6,290	0,000 *
					0,000 *
Intellectual stimulation.	-0,93	0,25	-1,13	-3,772	0,000 *
Individual support	-0,04	0,25	-0,05	-,164	0,870
				-	0,000 *
Transformational Leadership.	-5,86	0,50	-5,45	11,628	0,000 *
					0,000 *
Interactive Leadership	3,39	0,27	2,87	12,416	0,000 *
					0,000 *
Results of Leadership Behaviors	-1,19	0,28	-1,42	-4,326	0,000 *
					0,000 *
Multiple Factor Leadership Styles Scale	7,96	0,61	6,20	12,978	0,010 *
					0,010 *
Visionary Leadership	-0,49	0,19	-0,55	-2,588	0,530
Digital Age Learning Culture	0,18	0,29	0,25	,628	0,050
					0,050 *
Excellence in Professional Development	0,90	0,46	0,92	1,958	0,225
Systematic Development	-0,29	0,24	-0,38	-1,215	0,574
Digital Citizenship	-0,15	0,26	-0,19	-,563	0,569
Technology Leadership Competencies Scale	-0,44	0,78	-0,42	-,569	0,569

\*p<0,05, R2=0,212

In Table 8, when the results of the regression analysis of the school administrators and teachers participating in the research were influenced by the scores obtained from multi-factor leadership styles and technology leadership competencies from the organizational commitment scale; The regression model of school administrators and teachers about the scores of Idealized Impact (Attributed), Suggestive Motivation, Intellectual Stimulation, Transformational Leadership, Interactional Leadership, Leadership Behavior Results, Multiple Factor Leadership Styles Scale, Visionary Leadership and Excellence Scales in Professional Development predicted organizational commitment scores. It was found to be significant and explained 21.2% of the total variance ( $p < 0.05$ ).

School administrators and teachers; Idealized impact (Attributed) scores increased by 1 unit of organizational commitment points 1.94 units, if interactive leadership scores increased by 1 unit of organizational commitment points 3.39 units, Multiple leadership styles scores

increased by 1 unit organizational commitment scores 7.96 units, Organizational commitment scores increase by 0.90 units if excellence scores increase by 1 unit in professional development.

School administrators and teachers; Organizational commitment scores decreased by 1.45 if not motivated by suggestion, Organizational commitment scores decreased by 0.93 in the absence of intellectual stimulation, In the absence of transformational leadership, organizational commitment scores decreased by 5.86, organizational leadership scores decreased by 1.19 in case of negative leadership results, and organizational commitment scores decreased by 0.49 in the absence of visionary leadership.

### Discussion, Conclusion and Suggestions

The results of the study, which evaluated the opinions of the administrators of educational institutions in order to determine the effect of transformational leader types and leader styles that use technology at the center, on the organizational commitment of the trainers, were obtained as follows;

Intermediate, identification, internalization, idealized effects (behavior), idealized effects (attributed), suggestive motivation, intellectual stimulation, individual support, transformational leadership, interactive leadership, It was found that age learning cultures, excellence in professional development, systematic development, digital citizenship and technology leadership competencies of education managers were above average.

Gender mainstreaming of school administrators and teachers, idealized influence (Movement), motivation through suggestion, intellectual stimulation, personal assistance, transformational leadership, interactive leadership, leadership behavior outcomes, multiple leadership styles, visionary leadership, digital leadership time learning culture, excellence in the development of the profession, systematic development, digital citizenship and technology leadership competence scores close to each other, male school administrators and teachers' compliance, identification and organizational commitment scale scores according to female school administrators and teachers higher. Female school administrators and teachers' scores obtained from the idealized effect (attributed) sub-dimension were higher than male school administrators and teachers. Similarly with our study, there was no significant difference in the gender variable in the studies of Eryilmaz (2006), Keleş (2009), Çelik (2010) and Yıldırım (2013). However, Eryilmaz (2006), Zeren (2007), Bilir (2007) and Yilmaz (2010) 's difference in their work was found to have meaning. It was seen that male and female educators who participated in our study gave similar answers about organizational commitment, adaptation and identification and idealized effect. It is thought that this is due to the fact that the research group is educators. These results were also consistent with our study.

Identification, internalization, organizational commitment, idealized influence (Movement), idealized influence (Attribution), motivation through suggestion, intellectual warning, personal assistance, transformation leader, leadership behavior results, multiple Leadership styles, visionary leader, digital age learning culture, systematic development and digital citizen scores are similar. School administrators and teachers in the 40-48 age group had higher scores on adaptation and interactional leadership than the others. School administrators

and teachers in the 20-30 age group have higher scores in terms of excellence in professional development and technology leadership competencies of education managers. In addition, when the age variable was examined, no difference was found in the study conducted by Eryılmaz (2006) in the same way as our study. In addition, when the time variable related to the profession was examined, no difference was found in the level of meaning in the studies of Eryılmaz (2006) and Keleş (2009). It is thought that the educators in our research are idealistic because they are usually young educators, they feel loyalty to their schools and follow the technological developments. This situation is considered promising for our future education. These results were also consistent with our study.

In terms of marital status of school administrators and teachers, harmony, internalization, organizational commitment, idealized influence (Movement), idealized influence (Attribution), motivation through suggestion, intellectual warning, personal assistance, transformational leadership, leader type capable of interaction, The results of leadership behavior, multiple leadership styles, visionary leader, digital age learning culture, systematic development and technology leadership qualifications scores of digital citizenship and education managers are similar. Identifying scores of school principals and teachers who are widowed or divorced are higher than married or single. In a study conducted by Köse et al. (2004), it was found that unmarried ones were seeking more innovation than married ones. It is understood that unmarried ones have raised their qualities of being leaders in their search for innovation compared to married ones. Although the majority of the educators who participated in our study were married, it was understood that our single teachers had more specific thoughts about our working status. The reason for this is that family responsibility is more dominant among married teachers.

Identifying, internalizing, organizational commitment, idealized influence (cited), intellectual warning, personal assistance, behavioral outcomes, multiple leadership styles, visionary leadership, cultural structure of the information age, cultural structure of knowledge age, profession In terms of development, systematic development and the common knowledge of society as a result of technology increase, the status of expanding citizenship and technology leadership competence scores of educational administrators are similar. The adaptation scores of the school administrators and teachers, idealized influence (Behavior) and interactive leadership scores of postgraduate graduates and motivational motivation and transformational leadership scores of undergraduate graduates are higher than the others.

Organizational commitment in terms of professional seniority of school administrators and teachers, charisma, admiration, respect and trust of subordinates to the leader, individual support, transformational leader, leadership behavior results, multiple leadership styles, educational institution administrators with technology-related ideas and actions The structure is excellent in the developmental stages related to the profession, systematic development, technology-related citizenship and technology leadership competence scores of education managers are similar. School administrators and teachers whose professional seniority is between 1-10 years have higher adaptation and interactional leadership scores, school

administrators and teachers with 21 years and more identification, internalization, motivated motivation and intellectual stimulation scores.

In terms of the levels of education provided by school administrators and teachers, digital age learning culture, excellence in professional development, systematic development, education institution administrators' ideas and movements related to technology, model of the social structure of the educational institution, being perfect in the development stages related to the profession, systematic development, technology related and technology leadership competence scores of training managers are similar. The adaptation of school administrators and teachers in high school, adaptation, identification, internalization, organizational commitment, charisma, valuation of employees, motivation by suggestion, intellectual warning, transformational leadership, leadership behavior results, multiple leadership The scores of styles are higher than others. Identity, organizational commitment, idealized effect (Behavior), transformational leadership, multiple leadership styles, excellent development in the profession, systematic development, technology-based citizenship, visionary leadership and technology leadership competence scores of training managers are similar. The state of the school in which they provide education is higher than that of private school administrators and teachers whose scores of adaptation, idealized impact (attributed), individual support, interactive leadership, multiple leadership styles of school administrators and teachers are public schools. The state of the school they provide education is the digital age learning culture of internal school administrators and teachers, instilled motivation, intellectual stimulation scores are higher than that of public school administrators and teachers.

According to Zeren (2007), educators have mostly participated at all scales in maintaining the transformative leading qualities of their managers in educational institutions. In his study, the connection between the transformation leader types of the administrators of the educational institutions where primary education is given and the loyalty of the trainers working in the educational institutions to the educational organization, he examined this issue. Our study was generally conducted in public educational institutions. Therefore, it is thought that our educators have similar views about our research subject.

In the study of Çetiner (2008) of determination of educator ideas about the levels of leading behavioural styles of the administrators of primary education institutions showing transformation, they explained the idea that educators are the transforming leadership style of the directors of the educational institutions. The aim of the examination conducted by Uzer (2010) is to evaluate the educational institution administrators' understanding of the level of charisma, indoctrination, intellectual warning and personal assistance movements of the transformation provider leader type. As a result, the trainers accept that the directors of the educational institutions have the leading qualities of the transformation provider and think that they have the leading qualities of the transformation provider most associated with the intellectual warning.

Çelik's (2010) study of the connection between the competence States of the self-consciousness of the administrators of the educational institutions and the qualifications of the transformation provider to be a leader can be stated that the administrators of the educational

institutions are considered competent in the subject by considering the level of the education institution administrators to hold the qualifications of the transformation provider. These results were also consistent with our research.

The values taken from the harmony subscale in the organizational commitment scale and the charisma, indoctrination and motive, from the intellectual warning subscales, transformative leadership and leadership behavior results, from the identification sub dimension to the multifactorial leadership types scale, from the internalization sub dimension, intellectual stimulation and individual support from the internalization sub dimension. Negative and meaningful relationships were found in the values they received from the sub-dimensions of indoctrination and intellectual stimulation included in the multifactorial leadership types scale and from the scales of leadership behavior outcomes.

Organizational commitment scale, adaptation sub-scale of assist the individual with the values obtained from sub-scale, transactional leadership scale from the multifactor leadership styles throughout the scale, technology leadership competency Scale to become a visionary leader of technology-based learning, professional development related to the size of the bottom of being perfect, technology leadership competency Scale in general, the identification sub charisma than the size of the employees of the administrators of adoration, egghead warning sub-scales of transformation to be the leading provider, Multifactor leadership types scale general, internalization sub dimension charisma in multifactor leadership types scale, employee adoration of managers sub dimensions, transformative leader and Interactor leadership scales and multifactor leadership types scale, organizational commitment scale general charisma in multifactor leadership types scale and employee adoration of managers sub dimensions, Interactor leader scale, multifactor leadership types scale general. Positive and meaningful relationships were found in the values they received from the digital age learning culture from the lower dimensions of the technology leadership competencies scale.

School administrators and teachers ' organizational commitment scores increase at various rates if idealized impact (attributed), interactionist leadership, multiple leadership styles, and excellence scores in professional development increase by 1 unit.

In addition, it is observed that the lack of suggestion, lack of intellectual stimulation, lack of transformative and visionary leadership, and decrease in various rates when leadership behaviors are negative.

#### Suggestions

- The reason why educational institution administrators are not positive about the level of transformation leading educators should be investigated. It should be realized that the administrators of the training institution should reflect these qualities much better to the instructors.
- The reason why there is a lower level of understanding of the trainer about the leadership of the transformation provider of the managers in the educational institution is that if it depends on the competence of the manager, it is imperative to provide training types in this context.



- The individuals who are in the position of administrative officers should receive education within the University.
- This examination is restricted to the group that makes up the sample. In order for the review to be broad across the country, it is imperative that reviewers carry out widespread viewing.
- Educational institution administrators should be leaders in transforming the boundaries that should be important in the management philosophies.
- The ideas of trainers and managers can be explored in the way trainers and managers identify organizational commitment States of trainers and managers to be transformational leaders and to identify leaders that reconcile technology development with leadership.
- An increase in the allowances allocated for education and training can be achieved by training the leading types of transformation providers that will develop educational institutions.

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